UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,581	06/27/2001	Masayuki Sakura	35.C15488	3309

5514   7590   03/17/2006

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER
POON, KING Y

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/891,581	SAKURA, MASAYUKI
	Examiner	Art Unit	
	King Y. Poon	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2006*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *42-59* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *42-59* is/are rejected.

7)☒ Claim(s) *58* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 7-05)   Office Action Summary   Part of Paper No./Mail Date 20060310

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

1/12/2006 has been entered.

Claim Objections

2.   Claim 58 are objected to because of the following informalities: it appears that

the word "connected" are missing after "are" in line 2. Appropriate correction is

required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 42, 46, 47, 49, 50, 54, 55, 57-59 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Shibusawa (US 6,088,120) in view of well-known prior art.

Regarding claims 42, 50, 58: Shibusawa teaches a printing system (fig. 1) to

which plural print apparatus (2a, 2b, fig. 1) and information processing apparatus (1, fig.

1) are connected, comprising: an environment setting unit (note) adapted to set a print

environment (e.g., setting printer A and printer B as virtual printer or setting printer B,

printer C and printer D as virtual printer, fig. 6) of print data (e.g., the print data received

from 11a, 11b, etc, fig. 2), said environment setting unit including a selecting unit (note)

adapted to select at least two or more print apparatuses from among the plural print

apparatuses data (e.g., setting printer A and printer B as virtual printer or setting printer

B, printer C and printer D as virtual printer, fig. 6); and an obtaining unit (the program

code of the server that performs the step disclosed on page 5, lines 1-33) adapted to,

based on printer capability description information (column 5,lines 20-25) in which a

maximum number (maximum number are three, column 5, lines 15-25 for printer a and

two for printer b) of capability of a function of each of the plural print apparatuses is

described and the print environment set by said environment setting unit, add (sum,

column 5, lines 15-20) the maximum number of the capabilities of the functions of the

print apparatuses selected by said environment setting unit to set a renewal maximum

number (the maximum number are 4, A5, A4, B4, A3 are the four maximum capability of

the logical printer for the function of selecting paper, column 5, lines 25-30), said

renewal maximum number exceeding any of the maximum number of capabilities of a

function of each of the plural print apparatus (4 is exceeding 2 and 3) and generate

complex printer capability description information in which the set renewal maximum value is described (column 7,lines 50-67).

Note: Shibusawa does not specifically disclosed a setting unit and obtaining unit/generating unit, however, it is well known in the art the program and conditions of a computer (print managing apparatus of fig. 1) is being programmed by a user/person (official notice) by using a setting unit for entering information and using obtaining unit/generating unit for storing the entered data/program into the computer.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa to include: a setting unit and a obtaining unit/generating unit in the system of Shibusawa for entering and storing the physical printers to form the virtual printers.

Regarding claims 46, 54: Shibusawa teaches wherein the print environment of the print data includes types and the number of print apparatuses (fig. 7, column 5, lines 20-25), and said environment setting unit includes a unit adapted to select the type and the number of print apparatuses.

Regarding claims 47, 55: Shibusawa teaches the information processing apparatus further comprising an input operation unit adapted to be able to perform an input operation for updating the content of the printer capability description information of each of the plural print apparatuses (column 4, 50-67, column 5, lines 1-7).

Regarding claims 49, 57: Shibusawa teaches wherein the maximum number of the capability of the function of each of the plural print apparatuses is the number of output-permitted bins of each of the plural print apparatuses, and the renewal maximum

number is the number obtained by adding together (sum, 5,lines 24-26) the number of output-permitted bins of each of the plural print apparatuses (column 6, lines 1-5).

Note: the virtual printer is programmed by a user, and not all functions are permitted to be used (column 5, lines 35-45). Therefore, the output bins of the virtual printer set up in column 6, lines 1-5 are output permitted bins.

Regarding claim 59: Claim 59 is claiming a program for controlling the method as disclosed in claims 50, 42. It is well-known in the art that a server (column 3, lines 65-67) is controlled by a program (official notice).

5.   Claims 43, 44, 51, 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibusawa in view of well-known prior art as applied to claims 42, 50 above, and further in view of Rosekran et al (US 5,450,571).

Regarding claims 43, 51: Shibusawa teaches the information processing apparatus, further comprising an attribute setting unit adapted to set a print attribute of the print data (column 8, lines 10-25), wherein the setting of the print attribute by said attribute setting unit can be performed based on the renewal maximum value, based on the complex printer capability description information obtained by said obtaining unit (column 5, lines 20-27, column 6, lines 50-67).

Although Shibusawa teaches presenting renewed maximum number to a user, Shibusawa does not teach presenting the renewed maximum value on a screen.

Rosekrans, in the same area of virtual printers (column 4, lines 62), teaches presenting the renewed maximum number (virtual printer) on a screen (column 4, lines 40-45).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa to include: teach presenting the renewed maximum number on a screen such that a user would view the renewed maximum value.

Regarding claims 44, 52: Shibusawa teaches the information processing apparatus further comprising an indicating unit (job control portion, fig. 2) adapted to indicate print of the print data, wherein the print data print-indicated by said indicating unit is subjected to dispersion print (the print data of all print job is being subjected to dispersion print by using job output section, 14a, 14b etc, fig. 2) by the print apparatuses selected by said environment setting unit (column 4, lines 25-32).

6.   Claims 45, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibusawa in view of well-known prior art and Rosekran et al (US 5,450,571) as applied to claims 44, 52 above, and in further view of Lobiondo (US 5,287,194).

Regarding claims 45, 53: Shibusawa does not teach a receiving unit adapted to receive notification of information representing how the print data has been subjected to the dispersion print.

Lobiondo, in the same area of using multiple printers for printing print data (column 4, lines 50-65), teaches a receiving unit adapted to receive notification of

information representing how the print data has been subjected to the dispersion print (column 5, lines 10-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa to include: a receiving unit adapted to receive notification of information representing how the print data has been subjected to the dispersion print.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa by the teaching of Lobiondo because: it would have allowed users knowing where their print jobs are being printed, and it would have allowed users to know where to look for their print jobs to save time.

7.   Claims 48, 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibusawa in view of well-known prior art as applied to claims 42, 50 above, and further in view of Makishima et al (US 6,686,964).

Regarding claims 48, 56: Shibusawa does not teach wherein the maximum number of the capability of the function of each of the plural print apparatuses is the maximum number of output copies of each of the plural print apparatuses, and the renewal maximum number is the number obtained by adding together the maximum number of output copies of each of the plural print apparatuses.

Makishima, in the same area of printing using paper located in a paper tray, teaches the maximum number of print copies that a printer can produced depends on the maximum value of print sheet available (column 2, lines 20-43).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa to include: wherein the maximum number of the capability of the function of each of the plural print apparatuses is the maximum number of output copies of each of the plural print apparatuses, and the renewal maximum value is the number obtained by adding together the maximum number of output copies of each of the plural print apparatuses.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa by the teaching of Makishima because it would have allowed the logical printer of Shibusawa to be properly set up such that a user would fully utilized Shibusawa's invention.

8.   Claims 42, 46, 47, 49, 50, 54, 55, 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibusawa (US 6,088,120) in view of Lobiondo (US 5,287,194) and Zuber (US 6,035,103).

Regarding claims 42, 50, 58: Shibusawa teaches a printing system (fig. 1) to which plural print apparatus (2a, 2b, fig. 1) and information processing apparatus (1, fig. 1) are connected, comprising: an environment setting unit (note) adapted to set a print environment (e.g., setting printer A and printer B as virtual printer or setting printer B, printer C and printer D as virtual printer, fig. 6) of print data (e.g., the print data received from 11a, 11b, etc, fig. 2), said environment setting unit including a selecting unit (note) adapted to select at least two or more print apparatuses from among the plural print apparatuses data (e.g., setting printer A and printer B as virtual printer or setting printer

B, printer C and printer D as virtual printer, fig. 6); and an obtaining unit (the program

code of the server that performs the step disclosed on page 5, lines 1-33) adapted to,

based on printer capability description information (column 5,lines 20-25) in which a

maximum number (maximum number are three, column 5, lines 15-25 for printer a and

two for printer b) of capability of a function of each of the plural print apparatuses is

described and the print environment set by said environment setting unit, add (sum,

column 5, lines 15-20) the maximum number of the capabilities of the functions of the

print apparatuses selected by said environment setting unit to set a renewal maximum

number (the maximum number are 4, A5, A4, B4, A3 are the four maximum capability of

the logical printer for the function of selecting paper, column 5, lines 25-30), said

renewal maximum number exceeding any of the maximum number of capabilities of a

function of each of the plural print apparatus (4 is exceeding 2 and 3) and generate

complex printer capability description information in which the set renewal maximum

value is described (column 7,lines 50-67).

Shibusawa does not specifically disclosed a setting unit and obtaining

unit/generating unit, however, it is well known in the art the program and conditions of a

computer (print managing apparatus of fig. 1) is being programmed by a user/person

(official notice) by using a setting unit for entering information and using obtaining

unit/generating unit for storing the entered data/program into the computer.

Lobiondo teaches a user interface for allowing user to enter information (column

5, lines 25-30) and it is inherent that there is an obtaining unit/generating unit for storing

the data entered by the user into the computer memory.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa to include: a setting unit and a obtaining unit/generating unit in the system of Shibusawa for entering and storing the physical printers to form the virtual printers.

Shibusawa although teaches adding values, Shibusawa does teaches if the output number is 10 for printer A, and the output number is 20 for printer B; then the maximum output number is 30.

Lobiondo, in the same area of allowing multiple printers of printing a single print job teaches the system OPTIMALLY schedules a print job to available printers depending on printing speed of the printers, (column 2, lines 50-55, column 4, lines 50-65) and whether the print job can be printed within a predetermined time would be checked by the system. Mathematics teaches if printer A prints 3 pages per minute and printer B prints 4 pages per minute, it is very clear the combination of printer A and printer B is not able to print 8 pages per minute and optimally, the combination of printer A and printer B prints 7 pages per minute and such total must be detected if a user is entering a 8 page print job and setting a time limit of 1 minute.

Zuber further teaches virtual engine simply appears as a high speed entity and the speed is equal to the sum of the individual engines rated print speed (column 11, lines 30-35).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa's virtual printer to include setting the speed of the virtual printer as the speed equals to the sum of the individual

printer rated print speed such that a user or system of Shibusawa would easily determines how fast the virtual printer is or whether the user's print job would be able to print on time.

Regarding claims 46, 54: Shibusawa teaches wherein the print environment of the print data includes types and the number of print apparatuses (fig. 7, column 5, lines 20-25), and said environment setting unit includes a unit adapted to select the type and the number of print apparatuses.

Regarding claims 47, 55: Shibusawa teaches the information processing apparatus further comprising an input operation unit adapted to be able to perform an input operation for updating the content of the printer capability description information of each of the plural print apparatuses (column 4, 50-67, column 5, lines 1-7).

Regarding claims 49, 57: Shibusawa teaches wherein the maximum number of the capability of the function of each of the plural print apparatuses is the number of output-permitted bins of each of the plural print apparatuses, and the renewal maximum number is the number obtained by adding together (sum, 5,lines 24-26) the number of output-permitted bins of each of the plural print apparatuses (column 6, lines 1-5).

Note: the virtual printer is programmed by a user, and not all functions are permitted to be used (column 5, lines 35-45). Therefore, the output bins of the virtual printer set up in column 6, lines 1-5 are output permitted bins.

Regarding claim 59: Claim 59 is claiming a program for controlling the method as disclosed in claims 50, 42. It is well-known in the art that a server (column 3, lines 65-67) is controlled by a program (official notice).

9.   Claims 43, 44, 45, 51, 52, 53 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Shibusawa (US 6,088,120) in view of Lobiondo (US 5,287,194) and

Zuber (US 6,035,103) as applied to claims 42, 50 above, and further in view of

Rosekran et al (US 5,450,571).

Regarding claims 43, 51: Shibusawa teaches the information processing

apparatus, further comprising an attribute setting unit adapted to set a print attribute of

the print data (column 8, lines 10-25), wherein the setting of the print attribute by said

attribute setting unit can be performed based on the renewal maximum value, based on

the complex printer capability description information obtained by said obtaining unit

(column 5, lines 20-27, column 6, lines 50-67).

Although Shibusawa teaches presenting renewed maximum number to a user,

Shibusawa does not teach presenting the renewed maximum value on a screen.

Rosekrans, in the same area of virtual printers (column 4, lines 62), teaches

presenting the renewed maximum number (virtual printer) on a screen (column 4, lines

40-45).

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Shibusawa to include: teach

presenting the renewed maximum number on a screen such that a user would view the

renewed maximum value.

Regarding claims 44, 52: Shibusawa teaches the information processing

apparatus further comprising an indicating unit (job control portion, fig. 2) adapted to

indicate print of the print data, wherein the print data print-indicated by said indicating

unit is subjected to dispersion print (the print data of all print job is being subjected to

dispersion print by using job output section, 14a, 14b etc, fig. 2) by the print

apparatuses selected by said environment setting unit (column 4, lines 25-32).

Regarding claims 45, 53: Shibusawa does not teach a receiving unit adapted to

receive notification of information representing how the print data has been subjected to

the dispersion print.

Lobiondo, in the same area of using multiple printers for printing print data

(column 4, lines 50-65), teaches a receiving unit adapted to receive notification of

information representing how the print data has been subjected to the dispersion print

(column 5, lines 10-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Shibusawa to include: a receiving unit

adapted to receive notification of information representing how the print data has been

subjected to the dispersion print.

It would have been obvious to a person with ordinary skill in the art at the time

the invention was made to have modified Shibusawa by the teaching of Lobiondo

because: it would have allowed users knowing where their print jobs are being printed,

and it would have allowed users to know where to look for their print jobs to save time.

10.   Claims 48, 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shibusawa (US 6,088,120) in view of Lobiondo (US 5,287,194) and Zuber (US

6,035,103) as applied to claims 42, 50 above, and further in view of Makishima et al (US

6,686,964).

Regarding claims 48, 56: Shibusawa does not teach wherein the maximum

number of the capability of the function of each of the plural print apparatuses is the

maximum number of output copies of each of the plural print apparatuses, and the

renewal maximum number is the number obtained by adding together the maximum

number of output copies of each of the plural print apparatuses.

Makishima, in the same area of printing using paper located in a paper tray,

teaches the maximum number of print copies that a printer can produced depends on

the maximum value of print sheet available (column 2, lines 20-43).

Therefore, it would have been obvious to a person with ordinary skill in the art at

the time the invention was made to have modified Shibusawa to include: wherein the

maximum number of the capability of the function of each of the plural print apparatuses

is the maximum number of output copies of each of the plural print apparatuses, and the

renewal maximum value is the number obtained by adding together the maximum

number of output copies of each of the plural print apparatuses.

It would have been obvious to a person with ordinary skill in the art at the time

the invention was made to have modified Shibusawa by the teaching of Makishima

because it would have allowed the logical printer of Shibusawa to be properly set up

such that a user would fully utilized Shibusawa's invention.

Response to Arguments

11.   Applicant's arguments filed 1/12/2006 have been fully considered but they are

not persuasive.

With respect to applicant's argument that according to the present invention, it is

possible to set the print number 10+20=30 as the maximum output number, page 11,

lines 6-9, preliminary amendment filed on 1/12/2006.

In reply: according to the above statement, the limitation of 10+20=30 is one

possible limitation of claim 42. There are other possible limitations such as the

limitation teaches by Shibusawa at column 5,lines 20-30. The maximum capability of

paper selection function of printer a is 3 (A4, B4, A3), maximum capability of paper

selection function of printer b is 2 (A5, A4); and the combined maximum capability of

logical printer (virtual printer) is 4 (A5, A4, B4, A3). Note: if the maximum capability of

paper selection function of printer b is 1 (A4), then the combined maximum capability of

logical printer (virtual printer) is 4 (A5, A4, B4, A3).

Assuming the claimed limitation of claim 42 is 10+20=30.

Shibusawa although teaches adding values, Shibusawa does specifically setting

an example that if the output number is 10 for printer A, and the output number is 20 for

printer B; then the maximum output number is 30.

Lobiondo, in the same area of allowing multiple printers of printing a single print

job teaches the system OPTIMALLY schedules a print job to available printers

depending on printing speed of the printers, (column 2, lines 50-55, column 4, lines 50-

65) and whether the print job can be printed within a predetermined time would be

checked by the system. Mathematics teaches if printer A prints 3 pages per minute and printer B prints 4 pages per minute, it is very clear the combination of printer A and printer B is not able to print 8 pages per minute and optimally, the combination of printer A and printer B prints 7 pages per minute and such total must be detected if a user is entering a 8 page print job and setting a time limit of 1 minute.

Zuber further teaches virtual engine simply appears as a high speed entity and the speed is equal to the sum of the individual engines rated print speed (column 11, lines 30-35).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Shibusawa's virtual printer to include setting the speed of the virtual printer as the speed equals to the sum of the individual printer rated print speed such that a user or system of Shibusawa would easily determines how fast the virtual printer is or whether the user's print job would be able to print on time.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

March 10, 2006

KING Y. POON
PRIMARY EXAMINER